

# 40mm TiC Hammers Last 2.5x Longer Than Hammers Without TiC Inserts

Unicast's innovative Titanium Carbide (TiC) Hammer inserts result in less frequent hammer replacements and significant cost savings.

## PRODUCT

40mm TiC Hammers.

## APPLICATION

Lehigh Inland Cement  
Edmonton, AB, Clinker Cooler.

## CHALLENGE

Improve wear life and avoid costly shutdowns of the kiln due to part replacement.

## SOLUTION

Replace M2 Hammers with applied manual hard surfacing with 40mm TiC Hammers.

## RESULTS

Unicast's 40mm TiC Hammers outperformed the previous parts by more than 3x.



*Original hammers only last 11 months. We installed (TiC) hammers two years ago now, running for 20 months, and still going.*

**Supervisor Cement Plant**  
Edmonton, Alberta, Canada

*Cast replacement wear parts with improved wear life.*

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## BACKGROUND

In one clinker cooler campaign at Lehigh Inland Cement's production plant in Edmonton, AB, Unicast U2183 Hammers in manganese (M2) with hard surfacing delivered a wear life of 11.5 months.

## CHALLENGES

In order to avoid a costly and impromptu shutdown of the kiln during high season, Lehigh Inland Cement wanted hammers with a wear life of two campaigns instead of one.

## SOLUTION

Unicast promised double the wear life with 40mm TiC M2 Hammers after testing a partial set in a prior campaign.

TiC inserts, like those in the hammers, increase a wear part's structural strength and abrasion resistance, resulting in reduced breakage and a significantly longer wear life.

## PERFORMANCE & RESULTS

The new hammers were removed after 2.5 campaigns, exceeding expectations by 6 months. M2 Hammers with 40mm TiC inserts therefore outperformed the previous parts by more than 2.5x.

Hammers needed to be replaced less frequently on the Lehigh Inland Cement plant, boosting the operation's overall productivity.

## SUMMARY

Unicast 40mm TiC Hammers have more than 2.5x the wear life of M2 hammers with applied manual hard surfacing.

